

WHAT IS CLAIMED IS

1. An electric motor comprising;  
a stator core formed by an integrated set of a  
5 plurality of split core blocks;  
a core section having a metallic connection  
housing that connects the individual split core blocks  
in dovetailed form to create one connected core  
section; and  
10 wherein the dovetailed connections at said  
connection housing are plastically deformed to remove  
the connection gap existing at each of the dovetailed  
connections.
2. An electric motor comprising;  
15 a rotor;  
a stator;  
a stator core constituting said stator;  
a core section constituting said stator core;  
a plurality of split core blocks constituting said  
20 core section;  
a metallic connection housing that connects said  
split core blocks in dovetailed form to create one  
connected core section; and  
wherein said split core blocks are each formed of  
25 a laminated steel plate, said connection housing is

formed of a material softer than said laminated steel plate, and the dovetailed connections at said connection housing are plastically deformed to remove the connection gap existing at each of the dovetailed connections.

3. An electric motor as set forth in Claim 1, wherein said connection housing is formed of a material softer than said core section.

4. An motor comprising:

a stator;

a rotor so positioned as to be freely rotatable around said stator;

a stator core that constituting said stator;

a core section constituting said stator core;

a plurality of split core blocks constituting said core section; and

a metallic connection housing connecting said split core blocks so as to form one integrated core section,

wherein the magnetic pole tooth section formed by each of said split core blocks comprises a coil winding drum portion, an outer-surface magnetic pole portion provided at the outer-surface front end of said coil winding drum and spread in a circumferential direction, and a support portion provided at the

inner-surface front end of the coil winding drum;

wherein said magnetic pole tooth section whose  
outer-surface magnetic pole portion is positioned at  
the outer-surface side and whose coil winding drum is  
5 radially positioned is connected in dovetailed form to  
said connection housing positioned at the inner-  
surface side of said support portion;

wherein an engagement protrusion or engagement  
recess for dovetailed connection is provided on the  
10 inner surface of the support portion and an engagement  
protrusion or engagement recess for dovetailed  
connection is provided on the outer surface of the  
connection housing so as to fit into the engagement  
protrusion or engagement recess on the inner surface  
15 of the support portion; and

wherein the engagement protrusion or engagement  
recess for dovetailed connection, provided in the  
connection housing, is plastically deformed to remove  
the connection gap existing between the engagement  
20 protrusion and engagement recess that fit one another.

5. An electric motor comprising:

a stator;

a rotor positioned so as to be freely rotatable  
around said stator;

25 a stator core constituting said stator;

a core section constituting said stator core;  
a plurality of split core blocks constituting said  
core section; and

a metallic connection housing connecting said  
5 split core blocks so as to form one integrated core  
section;

wherein the magnetic pole tooth section formed by  
each of said split core blocks comprises a coil  
winding drum portion, an outer-surface magnetic pole  
10 portion provided at the outer-surface front end of  
said coil winding drum and spread in a circumferential  
direction, and a support portion provided at the  
inner-surface front end of the coil winding drum;

wherein said magnetic pole tooth section whose  
15 outer-surface magnetic pole portion is positioned at  
the outer-surface side and whose coil winding drum is  
radially positioned is connected in dovetailed form to  
said connection housing positioned at the inner-  
surface side of said support portion;

wherein an engagement recess for dovetailed  
20 connection is formed on the inner surface of the  
support portion and an engagement protrusion for  
dovetailed connection is formed on the outer surface  
of the connection housing so as to protrude from the  
25 outer surface of the connection housing to ensure a

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fit into the engagement recess on the inner surface of the support portion; and

wherein the engagement protrusion for dovetailed connection, provided on the connection housing, is  
5 plastically deformed to remove the connection gap existing between the engagement protrusion and engagement recess that fit one another.

6. An electric motor as set forth in Claim from 1, wherein said connection housing is formed by cold  
10 forging, die-casting, or the like.

7. An electric motor as set forth in Claim 1, wherein the connection gap is of a level at which the volume of the metallic material extruded by said plastic deformation is permissible.

15 8. An electric motor as set forth in Claim 1, wherein said connection housing to which the dieing tool to be used for forming by means of said plastic deformation, such as a punch, is provided with preholing, prepunching, or other preliminary machining,  
20 to ensure guidance for supporting the dieing tool.

9. An electric motor as set forth in Claim 8, wherein said plastic deformation fastens split core blocks to said connection housing and in the lateral laminating direction of said laminated steel plate.

25 10. An electric motor as set forth in Claim 4,

wherein said plastic deformation flares said support portion in its circumferential direction to remove the adjacent gaps between the supports of said adjacent magnetic pole teeth.

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